

Serial No. 10/046,443
ROA to FOA of 03/20/06

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of the claims:

1. – 9. (canceled)

10. (Currently Amended) A storage device comprising:

an electron emitter;

an atomic resolution storage medium having a storage area, a structural state of the storage area being alterable by a beam of electrons emitted by the electron emitter to represent information stored in the storage area;

a lens to adjust the focal point of the beam of electrons emitted from the electron emitter onto the atomic resolution storage medium;

a sensing switch coupled to the electron emitter to sense voltage on the electron emitter, the sensing switch being a sensing diode;

an amplifier coupled to the sensing switch that follows the voltage on the electron emitter, wherein the sensing switch is coupled to an input of the amplifier and the output of the amplifier is coupled to the lens; ~~and~~

a compensating diode coupled to the sensing diode and the amplifier, wherein the compensating diode compensates for a voltage drop across the sensing diode; and

a bias resistor coupled to an amplifier side of the compensating diode and ground, wherein the output of the amplifier drives the voltage on the lens.

11. (Original) The storage device of claim 10, further comprising:

a variable resistor coupled to an input of the amplifier, wherein the gain of the amplifier is adjusted according to the variable resistor.

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12. (canceled).

13. (Previously Presented) A storage device comprising:

an electron emitter;

a lens to adjust the focal point of a beam emitted from the electron emitter;

a sensing switch coupled to the electron emitter to sense voltage on the
electron emitter; and

an amplifier coupled to the sensing switch that follows the voltage on the
electron emitter, wherein the sensing switch is coupled to an input of the amplifier and
the output of the amplifier is coupled to the lens;

wherein the output of the amplifier drives the voltage on the lens and the
sensing switch is a sensing diode; and

further comprising a plurality of additional sensing diodes coupled to the input
of the amplifier and other electron emitters.

14. (Previously Presented) A storage device comprising:

an electron emitter;

a lens to adjust the focal point of a beam emitted from the electron emitter;

a sensing switch coupled to the electron emitter to sense voltage on the
electron emitter; and

an amplifier coupled to the sensing switch that follows the voltage on the
electron emitter, wherein the sensing switch is coupled to an input of the amplifier and
the output of the amplifier is coupled to the lens;

wherein the output of the amplifier drives the voltage on the lens and the sensing
switch is a sensing diode; and